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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,646	08/01/2001	Yuri Poeluev	06944.0046	2656

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EXAMINER	
NG, CHRISTINE Y	
ART UNIT	**PAPER NUMBER**
2616	

DATE MAILED: 05/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/918,646	POELUEV ET AL.	
	Examiner	Art Unit	
	Christine Ng	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 February 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *10 and 11* is/are allowed.

6)☒ Claim(s) *1-9 and 12-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 August 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,742,773 to Blomfield-Brown et al in view of U.S. Patent No. 5,535,199 to Amri et al.

Referring to claim 1, Blomfield-Brown et al disclose a method for manipulating at least one packet data compression parameter included in a negotiation packet, said method including the steps of:

Substituting at least one instruction set (waveformatex wfx) associated with said at least one parameter (compression format) at a layer of a protocol stack (Figure 4B, application layer 90), said at least one instruction set (wfx) for use in establishing a communication channel between a pair of correspondents (Figure 5, audio input device 100 and audio output device 136). Refer to Column 5, lines 63-67 and Column 9, lines 37-52. The method of substituting said at least one instruction set (wfx) further includes the steps of:

A software module (Figure 5, voice-over-data application 130) at said layer (Figure 4B, application layer 90) of a responding correspondent (Figure 5, audio output device 136) intercepting and examining at least one negotiation packet (dwMessage

message - startwave) from an initiating correspondent (Figure 5, audio input device 104). Refer to Column 10, lines 41-43.

Said software module (Figure 5, voice-over-data application 130) determining whether a first instruction set (compression format request in wfx) is present in the negotiation packet (dwMessage message - startwave). Refer to Column 10, lines 43-52.

Said software module (Figure 5, voice-over-data application 130) substituting said first instruction set (compression format request in wfx) with a second instruction set (another compression format request in wfx). Refer to Column 10, line 53 to Column 11, line 3.

At said initiating correspondent (Figure 5, audio input device 100) receiving said second instruction set (another compression format request in wfx) and transmitting subsequent packets to said responding correspondent (Figure 5, audio output device 136) in accordance with said second instruction set (another compression format request in wfx). Refer to Column 11, lines 4-15 and Column 11, line 65 to Column 12, line 1.

Blomfield-Brown et al do not disclose that the compression parameter is used for compressing the header. However, Blomfield-Brown et al disclose in Figure 5 that the system includes a packet compressor 112 for compressing a packet header, which "significantly improves the bandwidth for the audio connection", "allowing faster transmission in the limited bandwidth available". Refer to Column 8, lines 9-18 and lines 43-65. Therefore, it would have been obvious to one or ordinary skill in the art at

the time the invention was made to include that the compression parameter is used for compressing the header, the motivation being that compressing the header saves bandwidth which dramatically increases transmission rates.

Blomfield-Brown et al also do not disclose that the method is used for disabling header compression.

Amri et al disclose in Figure 6b a header compression format negotiation between an originating DTE 152 and a remote DTE 160. When the originating DTE 152 determines that the remote DTE 160 cannot support a requested header compression scheme, DTE 152 can disable header compression by setting (Figure 10) the PID 516 in the call request packet 500 to "CC". Refer to Column 7, line 57 to Column 8, line 29 and Column 10, lines 6-39. Therefore, it would have been obvious to one or ordinary skill in the art at the time the invention was made to include that the method is used for disabling header compression, the motivation being so that if a header compression format cannot be agreed upon between a source and a destination, no compression can be used.

Referring to claim 2, Blomfield-Brown et al disclose that said at least one instruction set (wfx) for use in establishing a communication channel between said correspondents (Figure 5, audio input device 100 and audio output device 136) includes a compression request (dwMessage – startwave) for packet data compression. Refer to Column 9, lines 37-52 and Column 10, lines 41-43.

Blomfield-Brown et al do not disclose that the compression request is for packet header compression. Refer to the rejection of claim 1.

Referring to claim 3, Blomfield-Brown et al disclose that said at least one instruction set (wfx) is used for establishing a communication channel between said correspondents (Figure 5, audio input device 100 and audio output device 136) includes a compression reject (dwMessage – badformat) for packet data compression. Refer to Column 9, lines 37-52 and Column 10, line 53 to Column 11, line 3.

Blomfield-Brown et al do not disclose that the compression reject is for packet header compression. Refer to the rejection of claim 1.

Referring to claim 4, Blomfield-Brown disclose that said at least one packet data compression parameter (compression format) is associated with at least one compression type option for data compression. Refer to Column 9, lines 37-52.

Blomfield-Brown et al do not disclose that the compression type option is for packet header compression. Refer to the rejection of claim 1.

Referring to claim 5, Blomfield-Brown et al do not disclose that said header compression is implemented by a Van Jacobson compression algorithm.

Amri et al disclose that the Van Jacobson compression algorithm is the "most effective TCP header compression scheme" and is "a method of improving the efficiency of TCP/IP based applications by coding the packet header and reducing its size" which results in "an improvement in the ratio of the number of data bytes to the total number of bytes sent across the network". Refer to Column 4, lines 50-56 and Column 7, lines 20-27. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the header compression is implemented by a Van Jacobson compression algorithm, the motivation being that the

Van Jacobson compression algorithm is the most effective TCP header compression scheme which when implemented, can save bandwidth and increase transmission rate.

Referring to claim 6, Blomfield-Brown disclose that said negotiation packets (dwMessage - startwave) are intercepted (by Figure 4B, sockets layer 94) before reaching said layer (Figure 4B, application layer 92). Refer to Column 9, lines 31-52 and Column 10, lines 33-40.

Referring to claim 12, Blomfield-Brown disclose a system for manipulating at least one packet compression parameter (compression format) included in a negotiation packet (dwMessage – startwave), said at least one parameter (compression format) associated with at least one instruction set (wfx) for establishing a communication channel between a pair of correspondents (Figure 5, audio input device 100 and audio output device 136). Refer to Column 5, lines 63-67 and Column 9, lines 37-52. The system has:

A software module (Figure 5, voice-over-data application 130) at a layer of a protocol stack (Figure 4B, applications layer 90) included in a computer readable medium in a responding correspondent (Figure 5, audio output device 136), said software module (Figure 5, voice-over-data application 130) configured to intercept and examine at least one negotiation packet (dwMessage – startwave) from said initiating correspondent (Figure 5, audio input device 100) and configured to substitute at least one instruction set (compression format request in wfx) associated with said at least one parameter with a second instruction set (another compression format request in wfx). Refer to Column 10, line 41 to Column 11, line 3.

Wherein subsequent packets to said responding correspondent (Figure 5, audio output device 136) in accordance with said second instruction set (another compression format request in wfx). Refer to Column 11, line 65 to Column 12, line 1.

Blomfield-Brown et al do not disclose that the compression parameter is used for compressing the header. Refer to the rejection of claim 1.

Blomfield-Brown et al also do not disclose that the method is used for disabling header compression. Refer to the rejection of claim 1.

3. Claims 7-9 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,742,773 to Blomfield-Brown et al in view of U.S. Patent No. 5,535,199 to Amri et al, and in further view of U.S. Patent No. 6,765,909 to Sen et al.

Referring to claims 7 and 13, Blomfield-Brown et al do not disclose that the layer of said protocol stack is a PPP layer.

Sen et al disclose in Figure 4 that the PPP layer 404 of the protocol stack supports Van Jacobson header compression and can provide a PPP header that encapsulates the compressed TCP/IP header from the TCP/IP header compression layer 402. Refer to Column 2, lines 35-42 and Column 5, lines 59-65. Therefore, it would have been obvious to one or ordinary skill in the art at the time the invention was made to include that the layer of said protocol stack is a PPP layer, the motivation being that the PPP data link layer is one layer below the TCP/IP layer and must support TCP/IP header compression in order to transport the packets down to the physical layer.

Referring to claims 8 and 14, Blomfield-Brown et al disclose that the negotiation packet is a sockets layer negotiation packet and not a PPP negotiation packet.

Sen et al disclose in Figure 4 that the PPP layer 404 of the protocol stack supports Van Jacobson header compression and can provide a PPP header that encapsulates the compressed TCP/IP header from the TCP/IP header compression layer 402. Refer to Column 2, lines 35-42 and Column 5, lines 59-65. Therefore, it would have been obvious to one or ordinary skill in the art at the time the invention was made to include at least one negotiation packet is a PPP negotiation packet, the motivation being so that PPP can negotiate a header compression format for the TCP/IP packets since PPP connects the TCP/IP layer with the physical layer for data transmission.

Referring to claim 9, Blomfield-Brown et al disclose a method for disabling packet data compression of packets during an establishment and configuration of a communication protocol and communication channel between a pair of correspondents (Figure 5, audio input device 100 and audio output device 136), said method including the steps of:

An initiating correspondent (Figure 5, audio input device 100) transmitting negotiation packets (dwMessage – startwave) including at least one compression request packet having at least one packet data compression option type (wfx), said option type (wfx) associated with a first instruction set (compression format request in wfx) for said establishment and configuration of said communication protocol and channel. Refer to Column 9, lines 37-52.

A software module (Figure 5, voice-over-data application 130) coupled to a responding correspondent (Figure 5, audio output device 136) intercepting and examining said at least one compression request packet (dwMessage – startwave) before said at least one compression request packet (dwMessage – startwave) reaches said responding correspondent's (Figure 4B, application layer 90) layer. Refer to Column 10, lines 41-43.

Said software module (Figure 5, voice-over-data application 130) determining said option type (wfx) included in said at least one compression request packet (dwMessage – startwave). Refer to Column 10, lines 43-52.

Said software module (Figure 5, voice-over-data application 130) substituting said first instruction set (compression format request in wfx) with a second instruction set (another compression format request in wfx) to said initiating correspondent (Figure 5, audio input device 100), said second instruction set (another compression format request in wfx) having an option type (dwMessage – badformat) rejecting said compression request. Refer to Column 10, line 53 to Column 11, line 3.

Transmitting subsequent data packets in accordance with said second instruction set (another compression format in wfx). Refer to Column 11, line 65 to Column 12, line 1.

Blomfield-Brown et al do not disclose that the compression parameter is used for compressing the header. Refer to the rejection of claim 1.

Blomfield-Brown et al also do not disclose that the method is used for disabling header compression. Refer to the rejection of claim 1.

Blomfield-Brown et al also do not disclose that the negotiation packets are PPP negotiation packets and are used for header compression of TCP/IP headers. Refer to the rejections of claims 7, 8, 13 and 14.

Referring to claim 15, Blomfield-Brown et al disclose that said negotiation packets (dwMessage – startwave) are intercepted by said software module (Figure 5, voice-over-data application 130) located at said (Figure 4B, application layer 90) layer before reaching said (Figure 4B, application layer 90) layer. Refer to the rejection of claim 6.

Blomfield-Brown et al do not disclose that the negotiation packets are PPP negotiation packets and that the layer is a PPP layer. Refer to the rejections of claims 7, 8, 13 and 14.

Allowable Subject Matter

4. Claims 10 and 11 are allowed.

Response to Arguments

5. Applicant's arguments filed February 27, 2006 have been fully considered but they are not persuasive.

Referring to the argument that the uncompressed mode taught by Amri et al is not equivalent to disabling header compression (page 2, line 23 to page 3, line 24): As shown in Figure 6b, source 152 sends a call request packet 154 requesting a specific type of header compression (PID = EF). If the destination 160 cannot support header compression, source A sends another call request packet 164 to disable header compression (PID = CC). Therefore, the source 152 first checks if the destination 160

can support header compression and if it cannot, the source disables header compression by sending uncompressed packets instead of compressed packets. Header compression is disabled since header compression can be inactivated by setting PID = CC. Header compression can also be activated by setting PID = EF. Refer to Column 7, line 57 to Column 8, line 29 and Column 10, lines 6-39.

Referring to the argument that there is no motivation to combine Blomfield-Brown et with with Amri et al (page 2, line 23 to page 3, line 24): Both Blomfield-Brown et al and Amri et al describe header compression negotiation methods. Blomfield-Brown et al disclose a system in which the best compression method is negotiated between two endpoints. Amri et al disclose negotiating between compression and no compression between two endpoints. Blomfield-Brown et al do not disclose that the method is used for disabling header compression. It would be obvious to combine the two references because if a header compression format cannot be agreed upon between a source and a destination, no compression can be used.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Ng whose telephone number is (571) 272-3124. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. Ng CN
May 4, 2006

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